

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

EDISONLED LLC, a Texas limited
liability corporation,

Plaintiff,

v.

HALCO LIGHTING TECHNOLOGIES,
LLC,

Defendant.

Civil Action No.

**JURY TRIAL
DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff EdisonLED LLC (“EdisonLED”), by and through the undersigned counsel, hereby asserts the following claims for patent infringement of United States Patent Nos. 7,560,738; 8,240,881; 8,492,780; 9,065,022; 9,368,483; 9,664,340; 10,224,455; 10,281,123; 10,319,703; and 11,808,436 (“patents-in-suit”; attached hereto as Exhibits 1-10, respectively) against Halco Lighting Technologies, LLC, (“Halco” or “Defendant”), and alleges as follows:

INTRODUCTION

1. EdisonLED owns by assignment all right, title and interest in numerous United States and foreign patents and applications, including the patents-in-suit.

2. Defendant infringes the patents-in-suit by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, a number of its commercial products including, *inter alia*, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb (collectively, the “Accused Products”). These Accused Products are marketed, offered, and distributed throughout the United States, including in this District.

3. By this action, EdisonLED seeks to obtain compensation for the harm EdisonLED has suffered as a result of Defendant’s infringement of the patents-in-suit.

4. The patents-in-suit were assigned to EdisonLED from Epistar Corporation (“Epistar”), a Taiwanese corporation with a principal place of business at 21 Li-Hsin Road, Hsinchu Science Park, Hsinchu 300, Taiwan.

5. Epistar is one of the largest manufacturers of LEDs in the world, with approximately 3,300 employees and millions of U.S. dollars invested annually in research and development work. To date, Epistar’s investment has resulted in over 5,000 patents.

6. Epistar is widely recognized as “one the pioneers in the LED filament industry” and “has invested resources in LED filament technology for years to improve filament efficiency.” Ex. 11. For example, the ’738 Patent (which was filed on March 11, 2005, and issued on July 14, 2009) discloses an LED array that overcomes drawbacks of previous designs. The ’738 Patent is well-recognized in the industry and has been cited at least 90 distinct times by other patents and patent publications throughout the world.

7. Epistar has received numerous industry awards over the years for its innovations in LED technology. For example, in 2013, Epistar received the Taiwan Outstanding Photonics Product Award 2013. *Id.* As another example, Epistar received the Outstanding Photonics Product Award at the 13th International Nano

Exposition for the design of its Flexible LED Lighting System. *Id.* As yet another example, in 2019, Epistar received the Taiwan Excellence Award for its GaN High Electron Mobility Transistor for LED lighting application. *Id.*

8. On information and belief, Defendant had knowledge of the patents-in-suit before the filing of this action. For example, on information and belief, Defendant had knowledge of the patents-in-suit before the filing of this action based on the industry's recognition of Epistar's LED technology and its patents, including the patents-in-suit, as discussed above.

9. As another example, Defendant has been aware of (or, at a minimum, was willfully blind to) the patents-in-suit well before the filing of this action in view of Epistar's previously-filed patent litigations against other parties in the industry. *See, e.g., Epistar Corporation v. Adamax, Inc. d/b/a Newhouse Lighting*, 16-cv-4981 (NDCA) (involving, *inter alia*, the '738, '881, '022 Patents); *Epistar Corporation v. Lowes Companies Inc. et al*, 17-cv-3219 (CDCA) (involving, *inter alia*, the '738, '780, '022, '340 Patents) ("Lowes litigation"); *Epistar Corporation v. All Star Lighting Supplies, Inc. d/b/a Luxrite*, 17-cv-8255 (D.NJ) (involving, *inter alia*, the '738, '022 Patents); *Epistar Corporation v. V-TAC USA Corp.*, 18-cv-799 (CDCA) (involving, *inter alia*, the '738, '881, '022, '340 Patents); *Epistar Corporation v.*

LightInTheBox Holding Co., Ltd. et al, 19-cv-1626 (D. Del.) (involving, *inter alia*, the '738, '881, '022, '340, '455 Patents and U.S. Patent No. 10,247,395, which is related to the '436 Patent); *Epistar Corporation v. Lowes Companies Inc. et al*, 20-cv-420 (WDTX) (involving, *inter alia*, the '881, '022, '340, '455 Patents); *Epistar Corporation v. Amazon.com, Inc.*, 22-cv-526 (WDTX) (patent litigation involving, *inter alia*, the '780 Patent); *Epistar Corporation v. Lowes Companies Inc. et al*, 23-cv-7283 (CDCA) (patent litigation involving the '738 Patent).

10. For instance, the Lowes litigation, initiated in 2017, lasted more than six years, garnered media attention across the industry, and resulted in a finding in favor of Epistar on both infringement and validity of claims 1-3, 8 of the '738 Patent and claims 1, 3, 7 of the '780 Patent. Following a second trial, the jury awarded Epistar a 2% running royalty rate on a base of \$44,602,364 for the '738 Patent, and a 1% running royalty rate on a base of \$44,602,364 for the '780 Patent.

11. Defendant's infringement has been willful since the time Defendant became aware of (or should have become aware of) the patents-in-suit. Based on the foregoing, Defendant became aware of (or should have become aware of) the patents-in-suit and had knowledge that it was infringing these patents-in-suit (i) at least as early as the issue date for each of the patents-in-suit, (ii) at least as early as

the commencement of one of the foregoing patent litigations involving the patents-in-suit, or (iii) at least as early as the filing of this action.

NATURE OF THE ACTION

12. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

13. Defendant has infringed and continues to infringe, and before the filing of this action (*see* ¶¶8-11), has induced and continues to induce infringement of, and has contributed to and continues to contribute to infringement of, one or more claims of patents-in-suit at least by making, using, selling, and/or offering to sell the Accused Products in the United States, including in this District, and/or by importing the Accused Products into the United States.

14. EdisonLED is the legal owner by assignment of the patents-in-suit, which were duly and legally issued by the United States Patent and Trademark Office (“USPTO”). EdisonLED seeks monetary damages for Defendant’s infringement of the patents-in-suit.

THE PARTIES

15. EdisonLED is a limited liability company organized under the laws of the State of Texas with its principal place of business at 17330 Preston Road, Suite 200D, Dallas, Texas 75252.

16. Defendant Halco Lighting Technologies, LLC is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 2940 Pacific Drive, Norcross, GA 30071. Defendant's registered agent for service of process is C T Corporation System located at 289 S Culver St, Lawrenceville, GA, 30046-4805.

17. On information and belief, Defendant directly and/or indirectly distributes, markets, offers to sell, and/or sells the Accused Products in the United States and/or imports the Accused Products into the United States, including in this District, and otherwise directs infringing activities to this District in connection with the Accused Products.

JURISDICTION AND VENUE

18. As this is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., this Court has subject matter jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a).

19. This Court has personal jurisdiction over Defendant because Defendant has: (i) availed itself of the rights and benefits of the laws of the State of Georgia, (ii) transacted, conducted, and/or solicited business and engaged in a persistent course of conduct in the State of Georgia (and in this District), (iii) derived substantial revenue from the sales and/or use of products, such as the Accused Products, in the State of Georgia (and in this District), (iv) purposefully directed activities (directly and/or through intermediaries), such as shipping, distributing, offering for sale, selling, and/or advertising the Accused Products, at residents of the State of Georgia (and residents in this District), (v) delivered the Accused Products into the stream of commerce with the expectation that the Accused Products will be used and/or purchased by consumers, and (vii) committed acts of patent infringement in the State of Georgia (and in this District).

20. This Court also has personal jurisdiction over Defendant because it is registered to do business in the State of Georgia and has a principal place of business in this District at 2940 Pacific Drive, Norcross, GA 30071.

21. Venue is proper in this District under the provisions of 28 U.S.C. § 1400(b) because, as noted above, Defendant has committed acts of infringement in

this District and has one or more regular and established places of business in this District.

PATENTS-IN-SUIT

U.S. Patent No. 7,560,738

22. U.S. Patent No. 7,560,738 (the “’738 Patent”) is titled “Light-emitting diode array having an adhesive layer” and was issued on July 14, 2009. A true and correct copy of the ’738 Patent is attached as Exhibit 1.

23. The ’738 Patent was filed on March 11, 2005 as U.S. Patent Application No. 10/906,894, which is a continuation-in-part of U.S. Patent Application No. 10/604,245 that was filed on July 4, 2003 and issued as U.S. Patent No. 6,987,287.

24. EdisonLED is the owner of all rights, title, and interest in and to the ’738 Patent, with the full and exclusive right to bring suit to enforce the ’738 Patent, including the right to recover for past infringement.

25. The ’738 Patent is valid and enforceable under United States Patent Laws.

26. The ’738 Patent recognized problems with existing light emitting diode (“LED”) arrays at the time of the invention of the ’738 Patent.

27. For instance, the '738 Patent recognized that “the LED array disclosed by the [prior art] cannot be applied to a quaternary Al—In—Ga—P light-emitting diode, which comprises a conductive substrate rather than an insulating substrate, P-contacts formed on one side of the conductive substrate, and N-contacts having to be formed on the other side.” '738 Patent at 1:31-36. In this respect, the '738 Patent recognized that “two quaternary Al—In—Ga—P light-emitting diode arrays can be connected neither in series nor in parallel,” and “as the size of the LED array become larger, the operating voltage of the LED array becomes higher accordingly, and heat dissipation becomes an important concern for the LED array.” *Id.*, 1:36-41.

28. In view of the foregoing, the '738 Patent sought to “provide an LED array having an adhesive layer to overcome the drawbacks of the prior art.” *Id.*, 1:45-47. In this respect, '738 Patent discloses a “light-emitting diode array” that comprises “an adhesive layer formed on the substrate,” and “a plurality of electrically connected epitaxial light-emitting stack layers disposed on the adhesive layer, each of the epitaxial light-emitting stack layers comprising a P-contact and an N-contact,” where “the P-contact and the N-contact are disposed on the same side of the epitaxial light-emitting stack layer.” *Id.*, cl. 1; 1:48-56. Advantageously, this

disclosed configuration “improve[s] the heat-dissipation efficiency” of an LED array. *Id.*, 4:17-23.

U.S. Patent No. 8,240,881

29. U.S. Patent No. 8,240,881 (the “’881 Patent”) is titled “Light-emitting device package” and was issued on August 14, 2012. A true and correct copy of the ’881 Patent is attached as Exhibit 2.

30. The ’881 Patent was filed on November 13, 2008 as U.S. Patent Application No. 12/292,161.

31. EdisonLED is the owner of all rights, title, and interest in and to the ’881 Patent, with the full and exclusive right to bring suit to enforce the ’881 Patent, including the right to recover for past infringement.

32. The ’881 Patent is valid and enforceable under United States Patent Laws.

33. The ’881 Patent recognized problems with existing light emitting devices at the time of the invention of the ’881 Patent.

34. For instance, with reference to FIG. 1 below, the ’881 Patent recognized that traditional light emitting devices comprised “a light-emitting diode chip 100 [that was] attached to a carrier 3 with an attached surface 1 which [wa]s parallel to

the front light extraction surface 4 of the light-emitting diode chip 100,” and “[t]he light emitted downward [wa]s reflected to the front light extraction surface 4 or the lateral light extraction surface 5 by the reflector 2.” ’881 Patent at 1:31-37; FIG. 1.

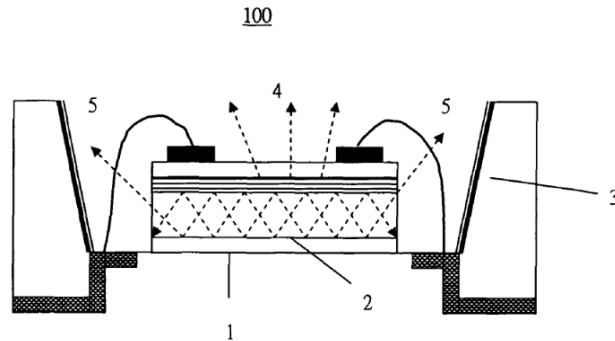


FIG. 1

35. According to the ’881 Patent, such traditional light emitting devices were “disadvantage[ous]” because “when the size of the light-emitting diode chip is larger, there are more reflected light passing through the multi-quantum well (MQW) in the light-emitting layer,” and, as a result, “[t]he light efficiency is reduced because of light absorption.” *Id.*, 1:37-42.

36. In view of the foregoing, the ’881 Patent discloses a “light-emitting device package” that comprises “a carrier having a platform,” and “a light-emitting device comprising [] a transparent substrate having a first surface and a second surface[,] and a light-emitting structure formed on the first surface of the transparent

substrate, wherein the light-emitting structure comprises at least a growth substrate and an active layer with p-n junction formed on the growth substrate, and an angle between the first surface of the transparent substrate and the platform is 45-135 degree.” *Id.*, cl. 1; 1:46-54.

U.S. Patent No. 8,492,780

37. U.S. Patent No. 8,492,780 (the “’780 Patent”) is titled “Light-emitting device and Manufacturing Method Thereof” and was issued on July 23, 2013. A true and correct copy of the ’780 Patent is attached as Exhibit 3.

38. The ’780 Patent was filed on February 11, 2010 as U.S. Patent Application No. 12/703,964, and claims priority to Taiwan Patent Application No. 098104423 that was filed on February 11, 2009.

39. EdisonLED is the owner of all rights, title, and interest in and to the ’780 Patent, with the full and exclusive right to bring suit to enforce the ’780 Patent, including the right to recover for past infringement.

40. The ’780 Patent is valid and enforceable under United States Patent Laws.

41. The ’780 Patent recognized problems with existing light emitting devices at the time of the invention of the ’780 Patent.

42. For instance, with reference to FIG. 1 below, the '780 Patent recognized that, “because the surface of the transparent substrate 10 of the conventional light emitting device 100 ... is substantially flat and the refractive index of the transparent substrate 10 is different from the refractive index of the external environment, the total internal reflection (TIR) occurs when a light A emitted from the active layer 122.” '780 Patent at 1:55-60.

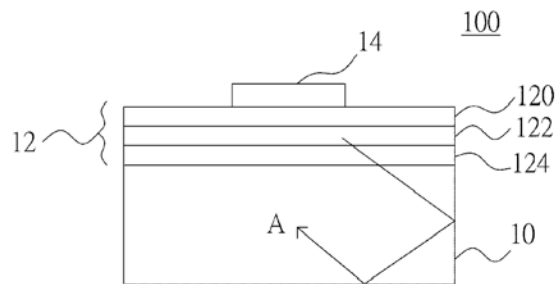


FIG.1
(Related Art)

43. As such, the '780 Patent recognized that “the light extraction efficiency from [a traditional] light emitting device [] is reduced drastically.” *Id.*, 1:61-62.

44. In view of the foregoing, the '780 Patent discloses a “light-emitting device” that comprises a “substrate” that includes a “a light emitting stack layer formed on the first major surface of the substrate, comprising a first conductive-type semiconductor layer, an active layer and a second conductive-type semiconductor layer,” where “the sidewall of the substrate comprises a first area and a second area,”

and “the morphology of the first area is substantially flat and the morphology of the second area is substantially textured.” *Id.*, cl. 1. According to the ’780 Patent, “light extraction efficiency of the light emitting device may be enhanced by the discontinuous structure on the sidewall.” *Id.*, 2:9-11.

U.S. Patent No. 9,065,022

45. U.S. Patent No. 9,065,022 (the “’022 Patent”) is titled “Light-emitting apparatus” and was issued on June 23, 2015. A true and correct copy of the ’022 Patent is attached as Exhibit 4.

46. The ’022 Patent was filed on March 18, 2013 as U.S. Patent Application No. 13/845,160.

47. EdisonLED is the owner of all rights, title, and interest in and to the ’022 Patent, with the full and exclusive right to bring suit to enforce the ’022 Patent, including the right to recover for past infringement.

48. The ’022 Patent recognized problems with existing light emitting products at the time of the invention of the ’022 Patent.

49. For instance, the ’022 Patent recognized that there were “limitations and challenges for applying LEDs or similar light emitting units to lamps for lighting.” ’022 Patent at 1:18-20. In this regard, the ’022 Patent recognized, “[i]n

the past, using LEDs as a light source called for depositing multiple LED chips on a plane and further providing an optical reflection mechanism to guide or broadcast the light emitted from the LED chips emitting light directionally in the beginning.” *Id.*, 1:20-24. According to the ’022 Patent, “[t]his kind of arrangement ... was not appropriate to substitute for traditional lamps with wide lighting angles.” *Id.*, 1:25-27. In particular, “[b]ecause only a portion of light generated by the LED chips propagated in the direction of lighting while the other portions were absorbed or lost during the reflection processes, the lighting efficiency was low and the number of the LED chips [had to] be increased for compensation and meeting the brightness requirement for lighting.” *Id.*, 1:27-32. Accordingly, the ’022 Patent recognized that “the cost of the tradition[al] LED lamp was high and the benefit for saving energy was insufficient.” *Id.*, 1:32-34.

50. Moreover, the ’022 Patent also recognized that, “in traditional LED lamps, the substrates on which LED chips were deposited were planar, firm, and opaque” and thus, “the flexibility of disposing LED chips was limited.” *Id.*, 1:35-38. For instance, the ’022 Patent recognized that, “when the substrates were non-planar, the light generated by the LED chips deposited on the substrates would be

shielded or blocked accordingly, which was unfavorable for reducing power consumption and costs of traditional LED lamps.” *Id.*, 1:38-42.

51. In view of the foregoing, the '022 Patent discloses a “a light emitting device with high reliability, high lighting efficiency, and low cost.” In this respect, the '022 Patent discloses a “light emitting apparatus” comprising (i) “at least one light emitting device” that includes “a substrate, having a support surface,” (ii) “at least one light emitting diode chip comprising a plurality of light emitting surfaces, disposed on said support surface of said substrate, one of said light emitting surfaces and said support surface forming a first main surface, wherein a light emitting angle of said light emitting diode chip is wider than 180°, and a portion of light emitted by said light emitting diode chip penetrates into said substrate from said support surface and emerges from a second main surface of said substrate opposing said first main surface,” and (iii) “a support base, coupled to said light emitting device, and forming a first angle with said substrate.” *Id.*, cl. 1. According to the '022 Patent, a light emitting apparatus in such a configuration can “provide sufficient lighting intensity and uniform lighting performance.” *Id.*, 2:7-10.

U.S. Patent No. 9,368,483

52. U.S. Patent No. 9,368,483 (the “’483 Patent”) is titled “Illumination device capable of decreasing shadow of lighting effect” and was issued on June 14, 2016. A true and correct copy of the ’483 Patent is attached as Exhibit 5.

53. The ’483 Patent was filed on November 25, 2013 as U.S. Patent Application No. 14/089,708, which is continuation-in-part of U.S. Patent Application No. 13/903,998 that was filed on May 28, 2013, and claims priority to U.S. Provisional Application No. 61/871,843 that was filed on August 29, 2013.

54. EdisonLED is the owner of all rights, title, and interest in and to the ’483 Patent, with the full and exclusive right to bring suit to enforce the ’483 Patent, including the right to recover for past infringement.

55. The ’483 Patent recognized problems with existing illumination devices at the time of the invention of the ’483 Patent.

56. For instance, the ’483 Patent recognized that “the conventional LED cannot or may be hard to provide required lighting effect for indoor and outdoor illumination applications.” ’483 Patent at 1:27-29. The ’483 Patent also recognized that “conventional LED illumination devices emit light beams from a single side and

luminous efficiency of the conventional LED illumination device is relatively low accordingly.” *Id.*, 1:30-33.

57. In view of the foregoing, the '483 Patent discloses an “illumination device” comprising “a supporting base having a symmetrical center,” “a plurality of semiconductor light emitting elements disposed on the supporting base and around the symmetrical center,” and “a plurality of supports disposed between the plurality of semiconductor light emitting elements and the supporting base, wherein the plurality of semiconductor light emitting elements are respectively disposed on one end of the supports,” where “each of the semiconductor light emitting elements” comprises “a substrate, having a support surface and a second main surface disposed opposite to each other,” and “a plurality of light emitting diode (LED) structures disposed on the support surface of the substrate, wherein at least a part of light directly emitted from at least one of the LED structure directly inserts into the substrate through the support surface and emerges from the second main surface, so as to provide bidirectional light emitting function of the semiconductor light emitting element,” where “the plurality of semiconductor light emitting elements is tilted corresponding to the supporting base for decreasing shadow of lighting effect.” *Id.*, cl. 1. The '483 Patent discloses that “[t]he purposes of luminous efficiency

enhancement, light shape improvement, and cost reduction may then be achieved.”

Id., 1:41-43.

U.S. Patent No. 9,664,340

58. U.S. Patent No. 9,664,340 (the “’340 Patent”) is titled “Light-emitting device” and was issued on May 30, 2017. A true and correct copy of the ’340 Patent is attached as Exhibit 6.

59. The ’340 Patent was filed on June 10, 2014 as U.S. Patent Application No. 14/301,060, and claims priority to Taiwan Patent Application No. 102120893 that was filed on June 11, 2013.

60. EdisonLED is the owner of all rights, title, and interest in and to the ’340 Patent, with the full and exclusive right to bring suit to enforce the ’340 Patent, including the right to recover for past infringement.

61. The ’340 Patent recognized problems with existing light emitting devices at the time of the effective filing date of the ’340 Patent.

62. For instance, the ’340 Patent recognized that “there is a need to have a light-emitting apparatus with an omnidirectional light pattern which is not available using the conventional light emitting apparatus.” ’340 Patent at 1:33-35.

63. Accordingly, the '340 Patent discloses a “light-emitting device” that comprises (i) “a carrier having a top surface and a bottom surface,” (ii) “a first electrode having a first part formed on the top surface, and a second part formed on the bottom surface,” (iii) “a second electrode having a third part formed on the top surface, wherein the first part and the third part are arranged at two opposite sides of the carrier,” (iv) “a first light-emitting unit disposed on the top surface and electrically connected to the first electrode,” and (v) “a transparent body covering the first part, the second part, the third part and the first light-emitting unit.” *Id.*, cl. 1. In such a configuration, the '340 Patent discloses that “light can emit toward different directions such that an LED bulb with an omnidirectional direction light pattern can be obtained.” *See, e.g., id.*, 22:21-23.

U.S. Patent No. 10,224,455

64. U.S. Patent No. 10,224,455 (the “'455 Patent”) is titled “Light-emitting device and method of forming the same” and was issued on March 5, 2019. A true and correct copy of the '455 Patent is attached as Exhibit 7.

65. The '455 Patent was filed on December 19, 2013 as U.S. Patent Application No. 14/301,060, which is a divisional of U.S. Patent Application No.

11/626,742 that was filed on January 24, 2007, which claims priority to Taiwan Patent Application No. 095103659 that was filed on January 27, 2006.

66. EdisonLED is the owner of all rights, title, and interest in and to the '455 Patent, with the full and exclusive right to bring suit to enforce the '455 Patent, including the right to recover for past infringement.

67. The '455 Patent recognized problems with existing light emitting devices at the time of the invention of the '455 Patent.

68. For example, with reference to FIG. 1A below, the '455 Patent discloses that, in a “conventional light-emitting diode,” “the light beams with larger incident angles, such as light R_1 and light R_2 , would be gradually absorbed by the light-emitting layer 131 after passing back and forth through the light-emitting layer 131 due to the total internal reflection, and consequently the brightness and the luminous efficiency of the light-emitting diode would be reduced.” '455 Patent at 1:41-47.

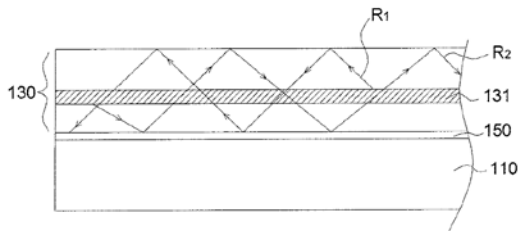


Fig. 1A (Prior Art)

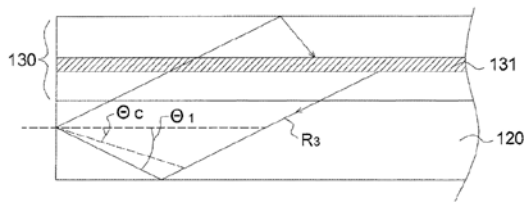


Fig. 1B (Prior Art)

69. As another example, with reference to FIG. 1B above, the '455 Patent discloses that, in “another conventional light-emitting diode,” “[w]hen the light from the light-emitting layer 131 is reflected at the bottom of the transparent substrate 120 and travels to the sides of the transparent substrate 120, some light beams (such as light R3) would be reflected back inside the light-emitting diode because its incident angle θ_1 is larger than the critical angle θ_c , and have more chances of being absorbed by the light-emitting layer 131.” *Id.*, 1:51-57. As such, the '455 Patent discloses that “the brightness and the luminous efficiency of the light-emitting diode are reduced.” *Id.*, 1:57-59.

70. In view of the foregoing, the '455 Patent discloses “a light-emitting device having a transparent adhesive layer, including a transparent substrate capable of improving the brightness and a first and a second electrodes on the same side.” *Id.*, 1:66-2:2. For instance, the '455 Patent discloses a “light-emitting device”

comprising (i) “an epitaxial structure comprising an active layer,” (ii) “a transparent substrate having a top surface being not less than 1.6 times an area of the active layer,” (iii) “a first transparent layer, directly connected to the transparent substrate and comprising a widest width smaller than that of the transparent substrate and larger than that of the epitaxial structure, (iv) “a second transparent layer, made of oxygen and only one metallic element, arranged between the first transparent layer and the epitaxial structure,” and (v) “a first electrode arranged on the first transparent layer and the second transparent layer which are not covered by the active layer,” where “the second transparent layer and the transparent substrate have outmost sidewalls which are not coplanar with each other.” *Id.*, cl. 1.

U.S. Patent No. 10,281,123

71. U.S. Patent No. 10,281,123 (the “’123 Patent”) is titled “Illumination device” and was issued on May 7, 2019. A true and correct copy of the ’123 Patent is attached as Exhibit 8.

72. The ’123 Patent was filed on June 22, 2018 as U.S. Patent Application No. 16/016,401, which is a continuation of U.S. Patent Application No. 15/631,482 that was filed on June 23, 2017, which in turn is a continuation of U.S. Patent Application No. 14/340,574 that was filed on July 25, 2014, which in turn is a

continuation of U.S. Patent Application No. 13/904,038 that was filed on May 29, 2013, which claims priority to U.S. Provisional Application No. 61/893,908 that was filed on October 22, 2013.

73. EdisonLED is the owner of all rights, title, and interest in and to the '123 Patent, with the full and exclusive right to bring suit to enforce the '123 Patent, including the right to recover for past infringement.

74. The '123 Patent recognized problems with existing light emitting devices at the time of the effective filing date of the '123 Patent.

75. For instance, the '123 Patent recognized that “the conventional LED cannot or may be hard to provide required lighting effect for indoor and outdoor illumination applications, and “conventional LED illumination devices emit light beams from a single side and luminous efficiency of the conventional LED illumination device is relatively low accordingly.” '123 Patent at 1:31-37.

76. In view of the foregoing, the '123 Patent discloses an “illumination device [that] includes a supporting base, and a light-emitting element inserted in the supporting base,” where “[t]he light-emitting element includes a substrate having a supporting surface and a side surface, a light-emitting chip disposed on the supporting surface, and a first wavelength conversion layer covering the light-

emitting chip and only a portion of the supporting surface without covering the side surface.” *Id.*, 1:41-49, cl. 1. In such a configuration, the ’123 Patent discloses that “[a] wavelength converting efficiency and light emitting performance ... may then be enhanced.” *Id.*, 5:43-45.

U.S. Patent No. 10,319,703

77. U.S. Patent No. 10,319,703 (the “’703 Patent”) is titled “Light bulb” and was issued on June 11, 2019. A true and correct copy of the ’703 Patent is attached as Exhibit 9.

78. The ’703 Patent was filed on August 23, 2018 as U.S. Patent Application No. 16/110,293, which is a continuation of U.S. Patent Application No. 15/730,323 that was filed on October 11, 2017, which in turn is a continuation of U.S. Patent Application No. 14/933,816 that was filed on November 5, 2015, which in turn is a continuation of U.S. Patent Application No. 13/743,030 that was filed on January 16, 2013, which claims priority to U.S. Provisional Application No. 61/694,410 that was filed on August 29, 2012, and U.S. Provisional Application No. 61/683,295 that was filed on August 15, 2012.

79. EdisonLED is the owner of all rights, title, and interest in and to the '703 Patent, with the full and exclusive right to bring suit to enforce the '703 Patent, including the right to recover for past infringement.

80. The '703 Patent recognized problems with existing light emitting devices at the time of the invention of the '703 Patent.

81. For instance, the '703 Patent recognized that “incandescent lamps are inefficient because 90% of the input energy is lost primarily in the form of heat or infrared energy,” and while “compact fluorescent lamps (CFL) are alternative to incandescent lamps” and “CFL is more effective at converting electricity into light,” “it contains toxic materials which lead to environmental pollution.” '703 Patent at 1:27-34. In view of the foregoing, the '703 Patent discloses a “light-emitting device” that “comprises light-emitting units; a transparent structure ... and a conductive element connecting at least two of the light-emitting units.” *Id.*, 1:53-57, cl. 1.

U.S. Patent No. 11,808,436

82. U.S. Patent No. 11,808,436 (the “'436 Patent”) is titled “Light-emitting apparatus” and was issued on November 7, 2023. A true and correct copy of the '436 Patent is attached as Exhibit 10.

83. The '436 Patent was filed on February 21, 2022 as U.S. Patent Application No. 17/651,891, which traces back from a series of continuation applications to U.S. Patent Application No. 13/834,246 that was filed on March 15, 2013, which claims priority to a series of Taiwan patent applications, the earliest of which was filed on May 29, 2012.

84. EdisonLED is the owner of all rights, title, and interest in and to the '436 Patent, with the full and exclusive right to bring suit to enforce the '436 Patent, including the right to recover for past infringement.

85. The '436 Patent recognized problems with existing light emitting devices at the time of the invention of the '436 Patent.

86. For instance, the '436 Patent recognized that there were “limitations and challenges for applying LEDs or similar light emitting units to lamps for lighting.” '436 Patent at 1:46-48. In this regard, the '436 Patent recognized, “[i]n the past, using LEDs as a light source called for depositing multiple LED chips on a plane and further providing an optical reflection mechanism to guide or broadcast the light emitted from the LED chips emitting light directionally in the beginning.” *Id.*, 1:48-53. According to the '436 Patent, “[t]his kind of arrangement ... was not appropriate to substitute for traditional lamps with wide lighting angles.” *Id.*, 1:54-

56. In particular, “[b]ecause only a portion of light generated by the LED chips propagated in the direction of lighting while the other portions were absorbed or lost during the reflection processes, the lighting efficiency was low and the number of the LED chips [had to] be increased for compensation and meeting the brightness requirement for lighting.” *Id.*, 1:56-61. Accordingly, the ’436 Patent recognized that “the cost of the tradition[al] LED lamp was high and the benefit for saving energy was insufficient.” *Id.*, 1:61-63.

87. Moreover, the ’436 Patent also recognized that, “in traditional LED lamps, the substrates on which LED chips were deposited were planar, firm, and opaque” and thus, “the flexibility of disposing LED chips was limited.” *Id.*, 1:64-67. For instance, the ’436 Patent recognized that, “when the substrates were non-planar, the light generated by the LED chips deposited on the substrates would be shielded or blocked accordingly, which was unfavorable for reducing power consumption and costs of traditional LED lamps.” *Id.*, 1:67-2:4.

88. In view of the foregoing, the ’436 Patent discloses a “a light emitting device with high reliability, high lighting efficiency, and low cost.” *Id.*, 2:8-10. In this respect, the ’436 Patent discloses a “light emitting apparatus” comprising (i) “a first light emitting device” that includes “a first substrate having a first upper surface

and a first bottom surface,” (ii) “a plurality of first LED chips disposed on the first upper surface and emitting a light penetrating the first substrate,” (iii) “a first wavelength conversion layer directly contacting the plurality of first LED chips and the first upper surface, and having a first shape in a cross-sectional view,” (iv) “a second wavelength conversion layer directly contacting first bottom surface, and having a second shape in the cross-sectional view, wherein the second shape is substantially the same as the first shape,” (v) “a second light emitting device separated from the first light emitting device, and comprising a second substrate and a plurality of second LEDs disposed on the second substrate,” (vi) “a support base connected to the first light emitting device by a first angle and connected to the second light emitting device by a second angle,” and (vii) “a first support arranged between the support base and the first light emitting device.” *Id.*, cl. 1. According to the ’436 Patent, a light emitting apparatus in such a configuration can “provide sufficient lighting intensity and uniform lighting performance.” *Id.*, 2:35-37.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 7,560,738

89. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

90. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '738 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “'738 Accused Products”).

91. As just one non-limiting example, set forth in Exhibit 12 is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '738 Patent in connection with one of the '738 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on

the basis of information about the '738 Accused Products that it obtains during discovery.

92. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '738 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '738 Patent under 35 U.S.C. § 271(c).

93. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '738 Patent while being on notice of (or willfully blind to) the '738 Patent. For instance, Defendant has supplied and continues to supply the '738 Accused Products to customers (*e.g.*, end users and/or distributors of the '738 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '738 Patent.

94. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '738 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '738 Accused Products and uses of the '738 Accused Products. *See, e.g.*, Ex. 22.

95. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '738 Patent. For instance, Defendant knows (and/or has known) of the existence of the '738 Patent or at least should have known of the existence of the '738 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '738 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '738 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '738 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '738 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '738 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

96. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '738 Patent by offering for sale, selling, and/or importing one or more components in connection with the '738 Accused Products

that contribute to the direct infringement of the '738 Patent by customers of the '738 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '738 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '738 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '738 Patent. Defendant has supplied (and/or continues to supply) the '738 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '738 Patent by using the '738 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

97. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '738 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

98. Additional allegations regarding Defendant's knowledge of the '738 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

99. Defendant's infringement of the '738 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

100. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '738 Patent.

101. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '738 Patent, including, without limitation, a reasonable royalty.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 8,240,881

102. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

103. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '881 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb,

Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “’881 Accused Products”).

104. As just one non-limiting example, set forth in Exhibit 13 is an exemplary claim chart evidencing Defendant’s infringement of claim 1 of the ’881 Patent in connection with one of the ’881 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the ’881 Accused Products that it obtains during discovery.

105. Additionally, Defendant has been and/or currently is an active inducer of infringement of the ’881 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the ’881 Patent under 35 U.S.C. § 271(c).

106. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the ’881 Patent while being on notice of (or willfully blind to) the ’881 Patent. For

instance, Defendant has supplied and continues to supply the '881 Accused Products to customers (*e.g.*, end users and/or distributors of the '881 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '881 Patent.

107. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '881 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '881 Accused Products and uses of the '881 Accused Products. *See, e.g.*, Ex. 22.

108. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '881 Patent. For instance, Defendant knows (and/or has known) of the existence of the '881 Patent or at least should have known of the existence of the '881 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '881 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '881 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of

the '881 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '881 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '881 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

109. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '881 Patent by offering for sale, selling, and/or importing one or more components in connection with the '881 Accused Products that contribute to the direct infringement of the '881 Patent by customers of the '881 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '881 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '881 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '881 Patent. Defendant has supplied (and/or continues to supply) the '881 Accused

Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '881 Patent by using the '881 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

110. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '881 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

111. Additional allegations regarding Defendant's knowledge of the '881 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

112. Defendant's infringement of the '881 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

113. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '881 Patent.

114. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '881 Patent, including, without limitation, a reasonable royalty.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 8,492,780

115. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

116. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '780 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the "'780 Accused Products").

117. As just one non-limiting example, set forth in Exhibit 14 is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '780 Patent in connection with one of the '780 Accused Products (*e.g.*, the Halco ST19

2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the '780 Accused Products that it obtains during discovery.

118. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '780 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '780 Patent under 35 U.S.C. § 271(c).

119. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '780 Patent while being on notice of (or willfully blind to) the '780 Patent. For instance, Defendant has supplied and continues to supply the '780 Accused Products to customers (*e.g.*, end users and/or distributors of the '780 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '780 Patent.

120. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '780 Patent. As one example, Defendant promotes, advertises, and instructs customers or

potential customers about the '780 Accused Products and uses of the '780 Accused Products. *See, e.g.*, Ex. 22.

121. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '780 Patent. For instance, Defendant knows (and/or has known) of the existence of the '780 Patent or at least should have known of the existence of the '780 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '780 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '780 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '780 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '780 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '780 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

122. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '780 Patent by offering for sale, selling, and/or importing one or more components in connection with the '780 Accused Products that contribute to the direct infringement of the '780 Patent by customers of the '780 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '780 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '780 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '780 Patent. Defendant has supplied (and/or continues to supply) the '780 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '780 Patent by using the '780 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

123. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '780 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

124. Additional allegations regarding Defendant's knowledge of the '780 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

125. Defendant's infringement of the '780 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

126. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '780 Patent.

127. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '780 Patent, including, without limitation, a reasonable royalty.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 9,065,022

128. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

129. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '022 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license,

Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “’022 Accused Products”).

130. As just one non-limiting example, set forth in Exhibit 15 is an exemplary claim chart evidencing Defendant’s infringement of claim 1 of the ’022 Patent in connection with one of the ’022 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the ’022 Accused Products that it obtains during discovery.

131. Additionally, Defendant has been and/or currently is an active inducer of infringement of the ’022 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the ’022 Patent under 35 U.S.C. § 271(c).

132. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '022 Patent while being on notice of (or willfully blind to) the '022 Patent. For instance, Defendant has supplied and continues to supply the '022 Accused Products to customers (*e.g.*, end users and/or distributors of the '022 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '022 Patent.

133. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '022 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '022 Accused Products and uses of the '022 Accused Products. *See, e.g.*, Ex. 22.

134. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '022 Patent. For instance, Defendant knows (and/or has known) of the existence of the '022 Patent or at least should have known of the existence of the '022 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '022 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its

knowledge of the '022 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '022 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '022 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '022 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

135. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '022 Patent by offering for sale, selling, and/or importing one or more components in connection with the '022 Accused Products that contribute to the direct infringement of the '022 Patent by customers of the '022 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '022 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '022 Accused Products that are not staple articles of commerce suitable for substantial

noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '022 Patent. Defendant has supplied (and/or continues to supply) the '022 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '022 Patent by using the '022 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

136. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '022 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

137. Additional allegations regarding Defendant's knowledge of the '022 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

138. Defendant's infringement of the '022 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

139. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '022 Patent.

140. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '022 Patent, including, without limitation, a reasonable royalty.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 9,368,483

141. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

142. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '483 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco A19 3000K 9W Bulb, Halco G25 7W Warm White Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, among other substantially similar products (collectively, the "'483 Accused Products").

143. As just one non-limiting example, set forth in Exhibit 16 is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '483 Patent in connection with one of the '483 Accused Products (*e.g.*, the Halco A19 3000K 9W Bulb). This description is based on publicly available information.

EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the '483 Accused Products that it obtains during discovery.

144. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '483 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '483 Patent under 35 U.S.C. § 271(c).

145. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '483 Patent while being on notice of (or willfully blind to) the '483 Patent. For instance, Defendant has supplied and continues to supply the '483 Accused Products to customers (*e.g.*, end users and/or distributors of the '483 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '483 Patent.

146. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '483 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '483 Accused Products and uses of the '483 Accused Products. *See, e.g.*, Ex. 22.

147. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '483 Patent. For instance, Defendant knows (and/or has known) of the existence of the '483 Patent or at least should have known of the existence of the '483 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '483 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '483 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '483 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '483 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '483 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

148. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '483 Patent by offering for sale, selling, and/or importing one or more components in connection with the '483 Accused Products

that contribute to the direct infringement of the '483 Patent by customers of the '483 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '483 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '483 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '483 Patent. Defendant has supplied (and/or continues to supply) the '483 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '483 Patent by using the '483 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

149. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '483 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

150. Additional allegations regarding Defendant's knowledge of the '483 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

151. Defendant's infringement of the '483 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

152. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '483 Patent.

153. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '483 Patent, including, without limitation, a reasonable royalty.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 9,664,340

154. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

155. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '340 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb,

Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “’340 Accused Products”).

156. As just one non-limiting example, set forth in Exhibit 17 is an exemplary claim chart evidencing Defendant’s infringement of claim 1 of the ’340 Patent in connection with one of the ’340 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the ’340 Accused Products that it obtains during discovery.

157. Additionally, Defendant has been and/or currently is an active inducer of infringement of the ’340 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the ’340 Patent under 35 U.S.C. § 271(c).

158. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the ’340 Patent while being on notice of (or willfully blind to) the ’340 Patent. For

instance, Defendant has supplied and continues to supply the '340 Accused Products to customers (*e.g.*, end users and/or distributors of the '340 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '340 Patent.

159. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '340 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '340 Accused Products and uses of the '340 Accused Products. *See, e.g.*, Ex. 22.

160. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '340 Patent. For instance, Defendant knows (and/or has known) of the existence of the '340 Patent or at least should have known of the existence of the '340 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '340 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '340 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of

the '340 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '340 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '340 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

161. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '340 Patent by offering for sale, selling, and/or importing one or more components in connection with the '340 Accused Products that contribute to the direct infringement of the '340 Patent by customers of the '340 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '340 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '340 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '340 Patent. Defendant has supplied (and/or continues to supply) the '340 Accused

Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '340 Patent by using the '340 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

162. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '340 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

163. Additional allegations regarding Defendant's knowledge of the '340 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

164. Defendant's infringement of the '340 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

165. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '340 Patent.

166. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '340 Patent, including, without limitation, a reasonable royalty.

COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 10,224,455

167. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

168. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '455 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “'455 Accused Products”).

169. As just one non-limiting example, set forth in Exhibit 18, is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '455 Patent in connection with one of the '455 Accused Products (*e.g.*, the Halco ST19

2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the '455 Accused Products that it obtains during discovery.

170. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '455 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '455 Patent under 35 U.S.C. § 271(c).

171. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '455 Patent while being on notice of (or willfully blind to) the '455 Patent. For instance, Defendant has supplied and continues to supply the '455 Accused Products to customers (*e.g.*, end users and/or distributors of the '455 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '455 Patent.

172. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '455 Patent. As one example, Defendant promotes, advertises, and instructs customers or

potential customers about the '455 Accused Products and uses of the '455 Accused Products. *See, e.g.*, Ex. 22.

173. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '455 Patent. For instance, Defendant knows (and/or has known) of the existence of the '455 Patent or at least should have known of the existence of the '455 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '455 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '455 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '455 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '455 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '455 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

174. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '455 Patent by offering for sale, selling, and/or importing one or more components in connection with the '455 Accused Products that contribute to the direct infringement of the '455 Patent by customers of the '455 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '455 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '455 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '455 Patent. Defendant has supplied (and/or continues to supply) the '455 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '455 Patent by using the '455 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

175. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '455 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

176. Additional allegations regarding Defendant's knowledge of the '455 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

177. Defendant's infringement of the '455 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

178. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '455 Patent.

179. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '455 Patent, including, without limitation, a reasonable royalty.

COUNT VIII: INFRINGEMENT OF U.S. PATENT NO. 10,281,123

180. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

181. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '123 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license,

Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the “123 Accused Products”).

182. As just one non-limiting example, set forth in Exhibit 19 is an exemplary claim chart evidencing Defendant’s infringement of claim 11 of the ’123 Patent in connection with one of the ’123 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the ’123 Accused Products that it obtains during discovery.

183. Additionally, Defendant has been and/or currently is an active inducer of infringement of the ’123 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the ’123 Patent under 35 U.S.C. § 271(c).

184. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '123 Patent while being on notice of (or willfully blind to) the '123 Patent. For instance, Defendant has supplied and continues to supply the '123 Accused Products to customers (*e.g.*, end users and/or distributors of the '123 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '123 Patent.

185. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '123 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '123 Accused Products and uses of the '123 Accused Products. *See, e.g.*, Ex. 22.

186. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '123 Patent. For instance, Defendant knows (and/or has known) of the existence of the '123 Patent or at least should have known of the existence of the '123 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '123 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its

knowledge of the '123 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '123 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '123 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '123 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

187. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '123 Patent by offering for sale, selling, and/or importing one or more components in connection with the '123 Accused Products that contribute to the direct infringement of the '123 Patent by customers of the '123 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '123 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '123 Accused Products that are not staple articles of commerce suitable for substantial

noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '123 Patent. Defendant has supplied (and/or continues to supply) the '123 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '123 Patent by using the '123 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

188. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '123 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

189. Additional allegations regarding Defendant's knowledge of the '123 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

190. Defendant's infringement of the '123 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

191. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '123 Patent.

192. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '123 Patent, including, without limitation, a reasonable royalty.

COUNT IX: INFRINGEMENT OF U.S. PATENT NO. 10,319,703

193. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

194. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '703 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the "'703 Accused Products").

195. As just one non-limiting example, set forth in Exhibit 20 is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '703 Patent in connection with one of the '703 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on the basis of information about the '703 Accused Products that it obtains during discovery.

196. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '703 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '703 Patent under 35 U.S.C. § 271(c).

197. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '703 Patent while being on notice of (or willfully blind to) the '703 Patent. For instance, Defendant has supplied and continues to supply the '703 Accused Products to customers (*e.g.*, end users and/or distributors of the '703 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '703 Patent.

198. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '703 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '703 Accused Products and uses of the '703 Accused Products. *See, e.g.*, Ex. 22.

199. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '703 Patent. For instance, Defendant knows (and/or has known) of the existence of the '703 Patent or at least should have known of the existence of the '703 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '703 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '703 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '703 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '703 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in

infringement of the '703 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

200. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '703 Patent by offering for sale, selling, and/or importing one or more components in connection with the '703 Accused Products that contribute to the direct infringement of the '703 Patent by customers of the '703 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '703 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '703 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '703 Patent. Defendant has supplied (and/or continues to supply) the '703 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '703 Patent by using the '703 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

201. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '703 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

202. Additional allegations regarding Defendant's knowledge of the '703 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

203. Defendant's infringement of the '703 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

204. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '703 Patent.

205. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '703 Patent, including, without limitation, a reasonable royalty.

COUNT X: INFRINGEMENT OF U.S. PATENT NO. 11,808,436

206. EdisonLED incorporates by reference and re-alleges the preceding paragraphs above as if fully set forth herein.

207. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '436 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, Halco lighting products, including, but not limited to, the Halco ST19 2200k 5.5W Bulb, Halco T14 2700K 4.5W Bulb, Halco B11 3000K 5.5W Bulb, Halco G25 3000K 5.5W Bulb, Halco A19 3000K 9W Bulb, Halco CA10 3000K 4.5W Bulb, Halco S14 2200K 2W Bulb, Halco B11 2700K 2.5W Bulb, Halco T10 Filament 2700K 4W Bulb, Halco G25 7W Warm White Bulb, Halco G16.5 2700K Bulb, Halco A19 2700K 9W Bulb, Halco A19 2700K 9W Frosted Bulb, Halco T9 3000K 5.5W Bulb, Halco T6 3000K 2.5W Bulb, among other substantially similar products (collectively, the "'436 Accused Products").

208. As just one non-limiting example, set forth in Exhibit 21 is an exemplary claim chart evidencing Defendant's infringement of claim 1 of the '436 Patent in connection with one of the '436 Accused Products (*e.g.*, the Halco ST19 2200k 5.5W Bulb). This description is based on publicly available information. EdisonLED reserves the right to modify this description, including, for example, on

the basis of information about the '436 Accused Products that it obtains during discovery.

209. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '436 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '436 Patent under 35 U.S.C. § 271(c).

210. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '436 Patent while being on notice of (or willfully blind to) the '436 Patent. For instance, Defendant has supplied and continues to supply the '436 Accused Products to customers (*e.g.*, end users and/or distributors of the '436 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '436 Patent.

211. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '436 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '436 Accused Products and uses of the '436 Accused Products. *See, e.g.*, Ex. 22.

212. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '436 Patent. For instance, Defendant knows (and/or has known) of the existence of the '436 Patent or at least should have known of the existence of the '436 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '436 Patent before or no later than the filing of this action (*see* ¶¶8-11). And, as a result of its knowledge of the '436 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '436 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '436 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '436 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

213. Additionally, Defendant has been and/or currently are contributorily infringing one or more claims of the '436 Patent by offering for sale, selling, and/or importing one or more components in connection with the '436 Accused Products

that contribute to the direct infringement of the '436 Patent by customers of the '436 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '436 Patent or was willfully blind to its existence before or no later than the filing of this action (*see* ¶¶8-11). Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '436 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) were especially made or especially adapted for use in infringement of the '436 Patent. Defendant has supplied (and/or continues to supply) the '436 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '436 Patent by using the '436 Accused Products in their intended manner (*e.g.*, pursuant to instructions provided by Defendant).

214. Before or no later than the filing of this action (*see* ¶¶8-11), Defendant's infringement of the '436 Patent was and continues to be willful and deliberate, thereby entitling EdisonLED to enhanced damages.

215. Additional allegations regarding Defendant's knowledge of the '436 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

216. Defendant's infringement of the '436 Patent is exceptional and entitles EdisonLED to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

217. EdisonLED is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '436 Patent.

218. EdisonLED is entitled to recover from Defendant all damages that EdisonLED has sustained as a result of Defendant's infringement of the '436 Patent, including, without limitation, a reasonable royalty.

JURY DEMAND

219. Pursuant to Federal Rule of Civil Procedure 38(b), EdisonLED hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff EdisonLED LLC respectfully requests:

A. That Judgment be entered that Defendant has infringed at least one or more claims of the patents-in-suit, directly and/or indirectly, literally and/or under the doctrine of equivalents;

B. An award of damages sufficient to compensate EdisonLED for Defendant's infringement under 35 U.S.C. § 284, including an enhancement of damages on account of Defendant's willful infringement;

C. That the case be found exceptional under 35 U.S.C. § 285 and that EdisonLED be awarded its reasonable attorneys' fees;

D. Costs and expenses in this action;

E. An award of prejudgment and post-judgment interest; and

F. Such other and further relief as the Court may deem just and proper.

Date: March 25, 2025

Respectfully submitted,

By: /s/ Steven G. Hill

Steven G. Hill,

GA Bar No. 354658

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Attorneys for Plaintiff EdisonLED LLC

CERTIFICATE OF COMPLIANCE

Pursuant to Local Rule 7.1(D), undersigned counsel certifies that the foregoing was prepared in Times New Roman, 14-point font, in compliance with Local Rule 5.1(C).

Dated March 25, 2025

/s/ Steve G. Hill

Steve G. Hill

Georgia State Bar No. 354658